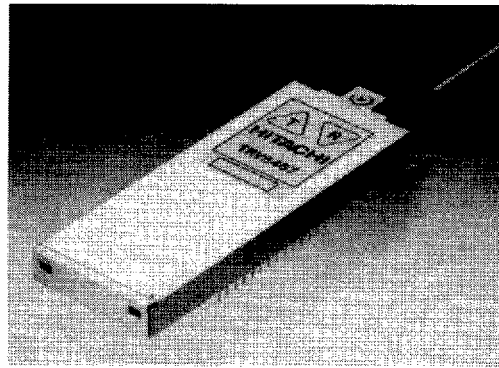


Description

The TRV5367 is a lightwave transceiver for OC-1.

Features

- Fabry-Perot laser/Ge APD
- Operation at 51.84Mb/s for 1.3 μm wavelength
- ECL 10k interface
- Clock recovery using SAW filter
- TX: Low-power alarm and shutdown
RX: Loss-of-signal (LOS) indicator



Absolute Maximum Ratings ($T_C = 25^\circ\text{C}$)

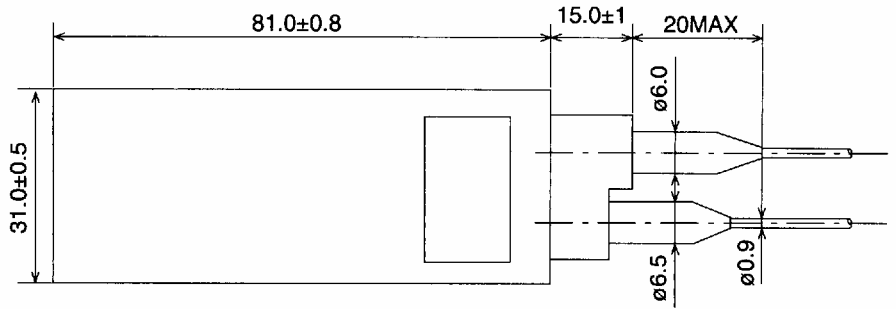
Item	Symbol	Rated Value	Units
Operating case temperature	T_{opr}	10 to 60	$^\circ\text{C}$
Storage case temperature	T_{stg}	-40 to 80	$^\circ\text{C}$
Supply voltages	V_{CC}	6.0	V
	V_{EE}	-5.75	
Lead soldering temperature	T_s	250	$^\circ\text{C}$
Lead soldering time	—	10	sec

Optical and Electrical Characteristics ($T_C = 25^\circ\text{C}$)

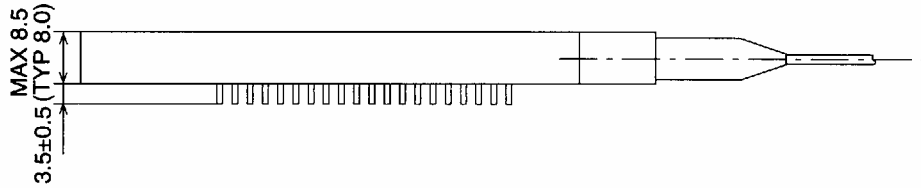
Item	Symbol	Min	Typ	Max	Units	Test Conditions
Average power output	P_O	-3	0	3	dBm	$T_C = 10$ to 60°C
Center wavelength	λ_c	1290	1310	1330	nm	$T_C = 10$ to 60°C
Spectral width	$\Delta\lambda$	—	—	10	nm	FWHM
Extinction ratio	—	13	—	—	dB	P_{OH} / P_{OL}
Optical eye pattern mask	—	—	—	—	—	CCITT
Minimum received power	P_{inmin}	—	-36	-35	dBm	$2^{23} - 1$ NRZ, 10^{-11} BER
Maximum received power	P_{inmax}	-17	-16	—	dBm	$2^{23} - 1$ NRZ, 10^{-11} BER
DC power supply voltage	V_{CC}	4.75	5.0	5.25	V	
	V_{EE}	-4.94	-5.2	-5.46		
DC power supply current	I_{CC}	—	—	30	mA	$V_{CC} = 5.0$ V
	I_{EE}	—	—	400		$V_{EE} = -5.2$ V
Output rise and fall times	t_r, t_f	—	—	1.9	ns	20 to 80%
Timing jitter (RMS)	—	—	—	2	deg	$2^{23} - 1$ NRZ

Outline Drawings and Pin Descriptions

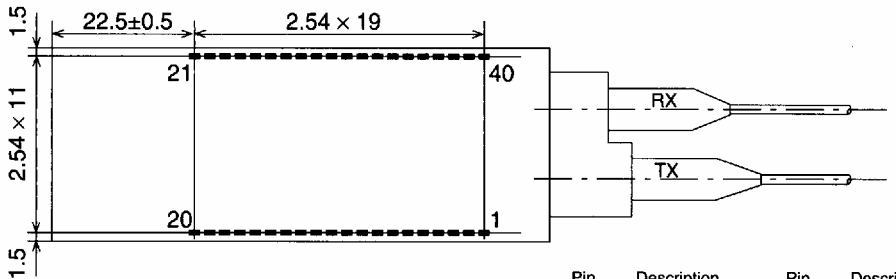
Top View



Side View



Bottom View



Fiber pigtail

• TX side

- Single-mode fiber
- Core/cladding diameter = 10/125 μm

• RX side

- Multi-mode fiber
- Core/cladding diameter = 50/125 μm

Dimension: mm

Pin	Description	Pin	Description
1:	TX Ground	21:	RX Ground
2:	TX Ground	22:	RX VEE2
3:	TX VEE1	23:	Data Out
4:	TX Alarm Out	24:	Data Out
5:	Clock In	25:	RX Alarm Out
6:	Data In	26:	RX Ground
7:	Shutdown In	27:	RX Ground
8:	RX VEE2	28:	RX Ground
9:	RX Ground	29:	RX Ground
10:	RX Ground	30:	RX VEE2
11:	RX Ground	31:	RX VEE2
12:	RX Ground	32:	RX Ground
13:	RX Ground	33:	RX Ground
14:	RX Ground	34:	RX Ground
15:	RX Ground	35:	RX Ground
16:	RX VEE2	36:	RX Ground
17:	Clock Out	37:	VCC
18:	Clock Out	38:	RX Ground
19:	RX Ground	39:	VEE3
20:	RX VEE2	40:	VEE3